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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/646,072 | 12/07/2000 | Alyn R. Holt | ITC-180US | 3776 |

7590 02/12/2003

Lawrence E Ashery
Ratner & Prestia
One Westlakes Berwyn
PO Box980
Valley Forge, PA 19482-0980

| EXAMINER | |
|---|---|
| PATEL, PARESH H | |
| ART UNIT | PAPER NUMBER |
| 2829 | |

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/646,072 | HOLT ET AL. | |
| | Examiner | Art Unit | |
| | Paresh Patel | 2829 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *12 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-29 and 43-53* is/are pending in the application.

4a) Of the above claim(s) *45-53* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29,43 and 44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Inventorship*

In view of the papers filed 11, the inventorship in this non-provisional application has been changed by the deletion of I. Marvin Weilerstein.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of the file jacket and PTO PALM data to reflect the inventorship as corrected.

### *Claim Objections*

Claims 2-11, 13-20 and 22-29 are objected to because of the following informalities: "a load" should read --the load-- and "a cable" should read --the cable--, . Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1 recites, "a rotation unit for rotating said first vertical axis about a second vertical axis spaced apart from the first vertical axis", wherein rotating first vertical axis about a second vertical axis is unclear because how one can rotate one

Now clear from amendment (paper # )

vertical axis on other vertical axis. For the purpose of Examination following assumption is made by the Examiner (i.e. a rotation unit for moving said first vertical axis to a second vertical axis spaced apart from the first vertical axis).

Claim 12 recites the limitation "said second vertical axis" in lines 10-11. There is insufficient antecedent basis for this limitation in the claim. clear will to amend c

Regarding claims 13-20 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. For Examination purpose Examiner assumes that claims 13, 14, 18 and 20 depends from claim 12. - Corrected in amendment c

Claims 2-11 are rejected because they depend from rejected claim.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12, 21-29 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Montalbano et al. (US 5606262).

Regarding claim 12, Montalbano et al. in fig. 1-4 discloses: a system for positioning a load [102], said load coupled to a cable [not shown but carried by 124A-D], said system comprising:

a column [234] which defines a first vertical axis [vertical axis of 234];

a cable support [124A-D] which moves along a third vertical axis [vertical axis of 106] and which supports the *(a)* cable coupled to said load; and

an arm unit [120, 130, 240, 242] which moves along said first vertical axis [234 with 236] which supports said load;

said column [234] positionable so that it is closer to said load [102 and 234, see fig. 1-2] than said third vertical axis is to said load;

said load [102] positionable by said arm unit so that said cable intersects said third *(second)* vertical axis and said cable is situated [in support 124A-D] to a side of said column [234].

Regarding claim 21, Montalbano et al. in fig. 1-4 discloses: a system for positioning a load [102], comprising:

an arm unit [120] which supports said load and which moves along a vertical column [234] which defines a first vertical axis [vertical axis of 234];

a rotation member [106] for rotating said first vertical axis about a second vertical axis [vertical axis away from first vertical axis in direction of 110] spaced apart from said first vertical axis;

a cable support [124A-D] which moves along a third vertical axis [vertical axis of 106] and which supports a cable [not shown but supported by 124A-D] coupled to said load [102]; and

a further rotation member [130, 240, 242] which provides rotation of said load about a horizontal axis, wherein vertical motion of said cable is preventable while said load is rotating about said horizontal axis.

Regarding claim 22, Montalbano et al. discloses: a system for positioning a load according to claim 21, wherein said arm unit moves upward and downward [in direction of 116] along said column.

Regarding claim 23, Montalbano et al. discloses: a system for positioning a load according to claim 21, wherein said cable support moves along said third vertical axis [direction 116] at one end thereof and said cable extends away from said one end and towards said load.

Regarding claim 24, Montalbano et al. discloses: a system for positioning a load according to claim 21, wherein said rotation member includes a bottom plate [108], and a swing plate [228, 226] which is coupled to said arm unit and which rotates relative to said bottom plate about said second vertical axis in order to rotate said load about said second vertical axis [in direction 110].

Regarding claim 25, Montalbano et al. discloses: a system for positioning a load according to claim 21, wherein said rotation member includes a side to side plate [240, 242] which moves said load horizontally along a first horizontal axis orthogonal to said first vertical axis.

Regarding claim 26, Montalbano et al. discloses: a system for positioning a load according to claim 21, wherein said rotation member includes an in-out plate [226 and 228 of 114] which moves said load horizontally along a second horizontal axis which intersects said first horizontal axis and which is orthogonal to said first vertical axis.

Regarding claim 27, Montalbano et al. discloses: a system for positioning a load according to claim 23, wherein said cable exits a test cabinet [104] before being received for support by said cable support, and wherein said load is an electronic test head [102].

Regarding claim 28, Montalbano et al. discloses: a system for positioning a load according to claim 25, wherein said rotation member includes a plurality of indexing members [210, 212, 214, 216, 232, 230] for indexing rotation of said swing plate about said second vertical axis.

Regarding claim 29, Montalbano et al. discloses: a system for positioning a load according to claim 21, wherein said cable support telescopes [114].

Regarding claim 44, Montalbano et al. discloses: a system for positioning a load [102], said load coupled to a cable [410], said system comprising;

a column [234] which defines a first vertical axis;

an arm unit [120] which supports said load and which moves along said first vertical axis;

a rotation unit [106, 108, 114] for rotating said first vertical axis about a second vertical axis [another vertical axis in direction 110] spaced apart from the first vertical axis;

said cable situated along an axis [axis of 106 and 114] which intersects a center of gravity of said load [axis of cable 410 and a center of gravity of 102] ;

said load positionable by said arm unit so that said cable intersects said second vertical axis [load 102 always intersects vertical axis in all position] and said cable is situated to a side of said column [234].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11, 13-20 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt (US 5241870) and in view of Montalbano et al. (US 5606262).

Regarding claim 1 Holt in fig. 1-8 and 9 discloses: A system for positioning a load [test head 151], said load coupled to a cable [cable of 883], said system comprising:

a column [844, 26] which defines a first vertical axis [140A];

an arm unit [890, 180] which supports said load and which moves along said first vertical axis;

a rotation unit [827, 833, 810, 33, 32, 180] for moving *(rotating)* said first vertical axis to *(about)* a second vertical axis spaced apart [any place on 833] from the first vertical axis;

said column positionable so that it is closer to said load [see fig. 8] than said second vertical axis is to said load.

Holt do not disclose said load positionable by said arm unit so that said cable intersects said second vertical axis and said cable is situated to a side of said column. However, Holt is silent about the location of cable near the load. Montalbano et al. (hereinafter Montalbano) discloses said load [102] positionable by said arm unit [120 and 130] so that said cable intersects said second vertical axis [another axis in direction of 110 of 102 on 106] and said cable [cable 410 inside 124A-D] is situated to a side of said column [234]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Holt with location of a cable support structure of Montalbano, which allow the cable to rotate as the test head rotates, in order to reduce the affects of cable portions on the position of the test head.

Regarding claim 2, Holt discloses: said load has a center of gravity [inherent to 151] and wherein said center of gravity, said first axis and said second axis are situated at the respective vertices of a triangle [vertices between axis of 844, 890 and a center of gravity of 151, see fig. 8].

Regarding claim 3, Holt discloses: a system according to claim 1, wherein said column [844] is forward of said second vertical axis towards said load and to a side of said second vertical axis.

Regarding claims 4 and 13, Montalbano discloses: a system for positioning the *(a)* load [102], further comprising a cable support [124A-D] which supports a cable coupled to the load [102].

Regarding claims 5 and 14, Montalbano discloses: a system for positioning the *(a)* load, wherein said cable support moves along a third vertical axis [vertical axis of 106, i.e. direction 116].

Regarding claims 6 and 15, Holt discloses: a system for positioning the *(a)* load, wherein said rotation unit includes a bottom plate [833 or 33], and a swing plate [810 or 32] which is coupled to said arm unit and which rotates relative to said bottom plate to (*about* ) said second vertical axis in order to rotate said load about said second vertical axis.

Regarding claims 7 and 16, Holt discloses: a system for positioning a load, wherein said rotation unit includes a side to side plate [853 or 180] which moves said load horizontally along a first horizontal axis orthogonal to said first vertical axis.

Regarding claims 8 and 17, Holt discloses: a system for positioning the (*a*) load, wherein said rotation unit includes an in-out plate [811, 812, 813] which moves said load horizontally along a second horizontal axis which intersects said first horizontal axis and which is orthogonal to said first vertical axis.

Regarding claims 9 and 18, Montalbano discloses: a system for positioning the (a) load, wherein said cables exit a test cabinet [104] before being received for support by said cable support, and wherein said load is an electronic test head [102].

Regarding claims 10 and 19, Holt discloses: a system for positioning a load, wherein said rotation unit includes a plurality of indexing members [836, 804] for indexing rotation of said swing plate about said second vertical axis.

Regarding claims 11 and 20, Montalbano discloses: a system for positioning the *(a)* load, wherein said cable support telescopes [114].

Regarding claim 43, Montalbano in fig. 1-4 discloses: a system for positioning a load [102], said load coupled to a cable [410], said system comprising:

a column [234] which defines a first vertical axis [vertical axis of 234];

an arm unit [120] which supports said load and which moves along said first vertical axis;

a rotation unit [106, 108, 114] for rotating said first vertical axis about a second vertical axis [another vertical axis of 234 at direction of 110] spaced apart from the first vertical axis;

said load positionable by said arm unit so that said cable intersects said second vertical axis [cable always moves with the load 102, so cable always intersects with vertical axis in all position of loads] and said cable is situated to a side of said column [cable 410].

Montalbano do not disclose: said second vertical axis situated not more than three widths of said cable away from said test cabinet. Rather, Montalbano discloses said load can positionable in direction 110 with plate 108, which is more then three widths of said cable. Here, moving a load to said second vertical axis situated not more than three widths of said cable away from said test cabinet is an obvious matter of design choice. It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the parts of the reference device to meet the terms of claims. In this case, limiting the movement of the load, in order to reduce the

forces on the cable which is attached to the load. See *In re Japikse,* 181 F.2d 1019, 86 USPQ 70 (CCPA 1950); and *In re Kuhle,* 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 703-306-5859. The examiner can normally be reached on M-F (8:30 to 4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 703-308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Paresh Patel
February 7, 2003

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